

REMARKS

Applicant respectfully requests reconsideration of the claims in light of the amendments presented herein.

Amendments to Specification

A clerical change has been made in the text to consistently use the term “Fibre Channel,” with both words capitalized. Previously, the terms “fiber channel” and “fibre channel” were used interchangeably in the description. Also, sometimes these terms were capitalized, sometimes not.

Pursuant to the original claims doctrine (see MPEP 601.01(d)), the paragraph [0026] of the description has been modified to include the subject matter of original claims 7—12. In the process, a clerical error in claim 11 was also fixed. Claim 11 read, “A probe system as claimed in claim 1, wherein said mechanism is an external fibre channel patch panel that replicates data for a given fibre channel port to said *port*.” (Emphasis added.) The last word should obviously have been “probe” not “port.” With the original word “port” claim 11 would contradict claim 1 on which it depends as well as the drawings (e.g., Figures 2 and 3); also, it would be useless to send data from the port back to itself.

Claim Objections

Claims 17—20 were objected to; in each of these claims, the preamble recited a method, while the claim body was in means plus function format. All “means for” language in claim 17 has been removed by these amendments, making it a standard method claims. Claims 18—20 have been canceled.

Claim Rejections (§112)

Claims 7, 10, 14, and 17 were rejected for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular claims 14 and 17 were rejected because of a discrepancy in each of these claims between the language of the preamble (“data ingress and egress”) and the language of the claim (“data ingress and/or egress”) for failing to point out and

distinctly claim the subject. As modified, the language of the preamble and the body now refers consistently to data transmissions.

Two claims contained the word “approximately.” The examiner rejected claims 7 and 10 on this basis, but actually the language appeared in claims 8 and 10. The word “approximately” has been removed from these claims.

Claim Rejections (§102): Busser

Claims 1—6, 11—14, and 17 were rejected based on §102(e) as being anticipated by Busser et al. (US 6,732,243), which is said to teach “a mechanism for copying all input and output data to/from fiber channel port to the probe (or device).” Busser is fundamentally different from our invention several respects. While Busser does involve mirroring in a Fibre Channel network, Busser’s data is mirrored among channel interface modules (CIMs) under the control of channel management modules (CMMs) to achieve redundancy in data storage. Our invention involves a “probe,” a structural element that analyzes and takes action based upon transmissions flowing through the network (e.g., to network traffic patterns) that are mirrored to it. The meaning of a “probe” is clear from the description (see, e.g., [0009], [0021], [0022], [0036]). This structural element is not present from Busser, and the functionality of the two inventions are entirely different. In any case, claim 1 has been substantially amended, clarifying the role of the probe element within the invention through its relationship to another structural element, “an analysis device, connected to the probe, that performs an integrated analysis of the data received by the probe from all mirrored ports and takes an action in response to the analysis.”

Claims 2—6 and 11—13 all depend on independent claim 1, and therefore contain structural elements that significantly distinguish these claims from Busser. Claim 14 now incorporates the limitations of the old claim 15, which has been canceled. Similarly, claim 17 now incorporates the limitations of the old claim 18, which has been canceled. Any grounds for rejection under §102(e) based on anticipation by Busser have therefore been eliminated.

Claim Rejections (§102): O'Donnell

Claims 1—7, 9, and 11—20 were rejected based on §102(e) as anticipated by O'Donnell et al. (US 6,381,642). Unlike the Busser reference, O'Donnell does monitor a

network with a probe. However, there are several major differences in the monitoring approach of O'Donnell from our invention. These major differences can be summarized as follows:

- O'Donnell minimizes the amount of data that is sent from the ports to their monitoring device or probe ("host client") (col. 2 lines 61—67) and the data that is sent is only statistical data collected at the ports (abstract; col. 2 lines 40—46; table 1). Our invention, on the other hand, mirrors *all of the data* passing through the mirrored ports to the probe. Obviously, far more (and more detailed) information is being sent to our probe. O'Donnell effectively teaches away from our approach for efficiency reasons (col. 2 lines 61—67). On the other hand, the kinds of analyses that can be performed by our probe and analysis device, which have full access to all actual frames transmitted, is far broader. For example, our invention allows actions triggered by events ([0021], amended claim 17, and new claim 24) based on the "nature of the data" ([0021], [0022]) associated with each monitored port, including events deduced from the content of the data (amended claim 17 and new claim 22). In a retail environment, for example, the probe could send out an alert that a particular store is running low on a particular item in inventory, and a new shipment should be sent to that store from a warehouse. This kind of determination could only be made by looking at the content of the transmitted data, and could not be achieved by the O'Donnell invention, which only monitors network traffic statistics.
- O'Donnell's probe only polls data from the ports at discrete intervals in time (see 33 in Fig. 3). Because our invention mirrors the data, analyses can be performed on a continuous basis (claims 1, 14, 17, and 23).

In short, the O'Donnell invention and the present invention have different approaches and different purposes. It would not be surprising to find them both within the same environment.

With regard to specific claims, claim 1 is distinguishable from O'Donnell at least because (1) all data is copied to the probe, not just statistical data; (2) data is copied continuously, not just periodically or from time to time; and (3) the analysis performed is an integrated analysis from a plurality of mirrored ports and devices communicating through those ports.

Claims 2—13 are all ultimately dependent on claim 1, and therefore should be allowable.

Claims 21—24 are new claims all ultimately dependent on claim 1. Claim 21 recites some particular kinds of integrated analyses that can be done with data from the probe.

Claim 22 claims specifically that kind of analysis that is both “integrated” and “requires examination of the content of the data being transmitted between devices.” O’Donnell does not teach integrated analyses, nor does its scheme for polling ports support access to the content of data being transmitted—it only allows statistical statistics about network traffic.

Claim 23 claims specifically that kind of analysis that is “integrated” and “requires data from a plurality of ports to be mirrored continuously.” While claim 1 recites a mirroring scheme that provides *data* from a plurality of ports continuously, claim 23 further claims an *analysis* that *requires* such continuous data from multiple ports to be performed.

Claim 24 recites a variety of actions that can be taken in response to an analysis of data from the probe.

Claim 14, a method claim which was rejected as being anticipated by O’Donnell, has been amended to (1) provide monitoring of all mirrored ports associated with a given device; and (2) mirror data transmissions (and not just statistics); (3) on a continuous rather than periodic or occasional basis; and (4) perform a device-level (as well as port-level) analysis of the data, a kind of analysis not taught by O’Donnell. Claim 15 has been canceled, and, consequently, claim 16 has been modified to depend on claim 14 rather than claim 15.

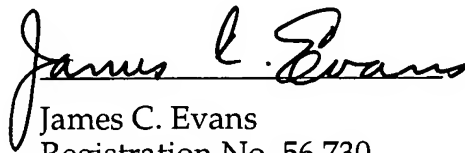
Claim 17 is similar to claim 14, but (among other differences) it recites “analyzing the content of the transmissions” and “triggering an alert based on the analysis.” Note that O’Donnell does not—and in fact cannot—analyze content because it does not do mirroring of the data transmissions, and because they only deal with statistics. Claims 18—20 have been canceled.

CONCLUSION

All of the claims remaining in this application should now be seen to be in condition for allowance. The prompt issuance of a notice to that effect is solicited.

Respectfully submitted,
COMPUTER NETWORK
TECHNOLOGY CORPORATION
By its attorneys:

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James C. Evans
Registration No. 56,730
Beck & Tysver, P.L.L.C.
2900 Thomas Ave., #100
Minneapolis, MN 55416
Telephone: (612) 915-7006
Fax: (612) 915-9637